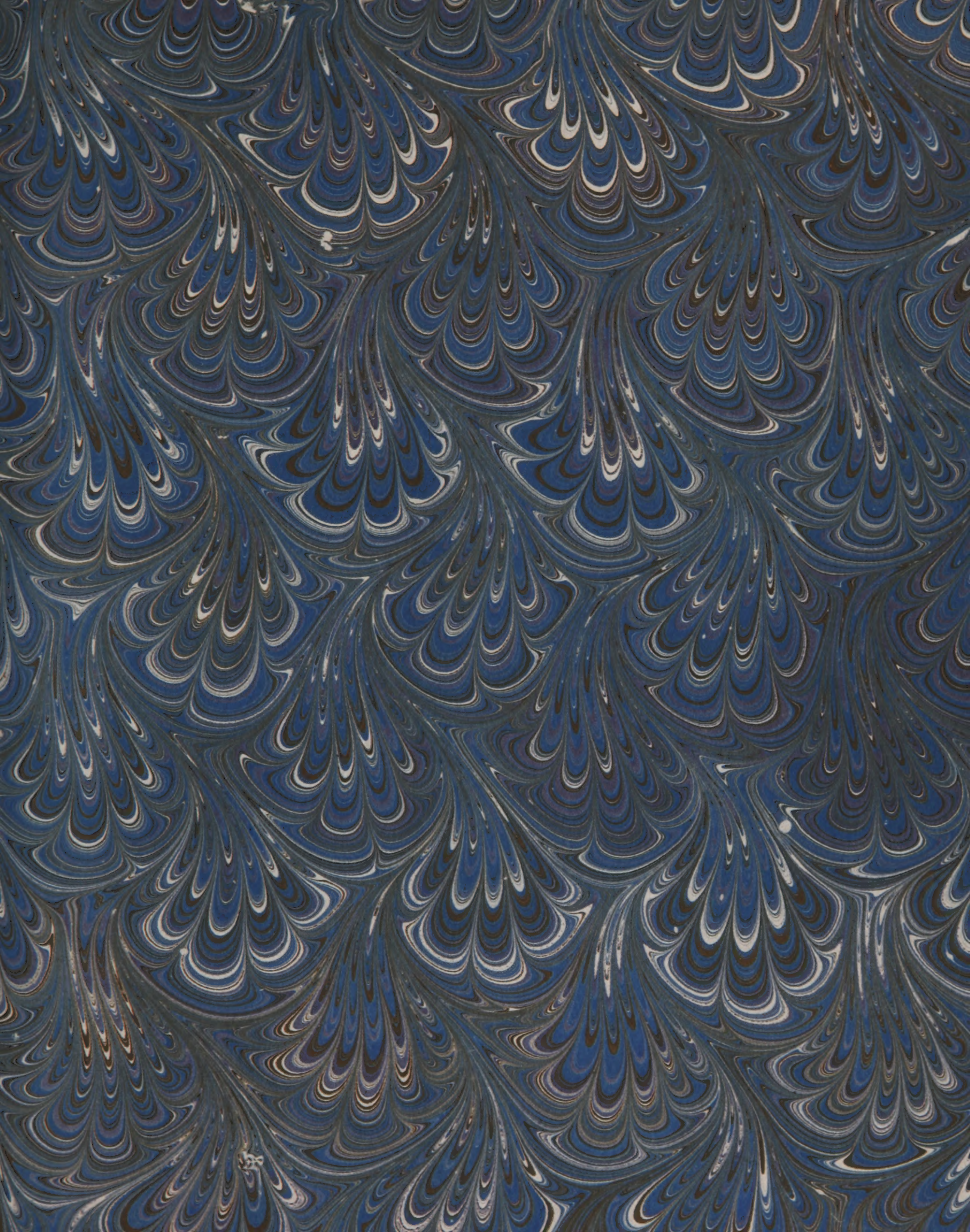

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CARBOLIZATION IN SMALL POX.

By ARTHUR B. STOUT, M.D., San Francisco.

As variola, with its suite of terrors, is now exciting the public mind, I propose to offer for publication the following suggestions for its more efficient treatment. Without losing time to wait for the confirmation of my views by my own experience, I feel so firmly convinced of the efficacy of the proposed management of the disease, and that success will crown its application, that I do not hesitate to propose its adoption. Although variola is usually propagated by contagion, its original development most probably proceeded from a malarious source. Were its origin in an internal constitutional cause, from some degeneration in the solid tissues of the body, or the circulating fluids, the disease would probably be more confined than it is to individuals whose organic system had become contaminated by the decomposition of retained excretions, or otherwise. There are reasons to show that small pox may exist as an epidemic. Researches as minute as those of Salisbury into the sources of malarious maladies may yet demonstrate the specific nature of the variolous intoxication, and the prediction may be ventured that it will be ultimately determined to be of an origin extraneous to the human body; hence of a malarious character, and originally begotten, like diseases of that type, by absorption through the lungs.

Be this as it may, whether a modification of that form of sporule growth which gives rise to the varieties of malarious disease, or another specific variety of vegetable germination generates variola, or whether the poison is first developed in the human body, the disease, when established, gives rise to emanations from the body which propagate indefinitely the malady; the poisonous effluvia reproduce themselves, and the frightful contagion respects no class of society. Whether these emanations from the skin, from the lungs, from any or all of the secretions or excretions, are of vegetable or animal composition, it is nevertheless they which diffuse the disease.

It is against them, therefore, in the effort to suppress the disease, and at least divest it of its *contagious* character, that my views of treatment are directed.

I am not of those who believe that the small pox must have its definite duration, but, on the contrary, that its course may be shortened. Also, that more may be accomplished in its treatment than simply to mitigate the severity of the attack by relieving the digestive organs, and the use of cooling beverages. The poison which intoxicates the circulating media appears to act like a ferment in the secretions. When its action is once established, it constantly reproduces itself, and thus continuously aliments the disease. It protracts and aggravates the symptoms. When its contagious atoms are liberated from the body, the supply is thus constantly renewed.

If, then, we can find an agent which will destroy this poison, be it animal or vegetable in its nature, and which will promptly arrest its development in its incipiency, surely we may hope to diminish the acuteness of the disease, to shorten its duration, and at any rate to control its propagation.

This agent I believe to be carbolic acid. The prompt and immediate action of this remarkable substance to destroy the vitality of all confervoid growths—all infusorial beings—is known. It not only immediately extinguishes the existing germs, but arrests their future development in the fluids in which it is infused. The minute quantity which suffices for this purpose renders it cheap and accessible for all uses. To sanify hospitals, ships, private dwellings, sewers, and the sick room of small pox patients, it is invaluable. It is by inference from these facts, that I propose to employ it in the active, as well as preventive, treatment of variola.

In conjunction with the use of the Sarracenia purpurea, I feel confident in the hope to establish a new treatment for variola, and put an end in due time to the general horror and fear and desertion from the holiest duties of life, which follow the announcement of small pox.

In brief, then, let the patient be lightly moistened over several times daily with a weak solution of carbolic (phenic) acid. The best mode of application is in the form of solution in tepid water. It may be used with a soft sponge, or better still, with a broad camel's hair brush, such as is used for varnishing, say two inches broad. The brush will pass lightly over the pustules, without disturbing them or spreading the suppuration. As a gentle stimulant, it will accelerate the cure of the pustules. Wherever albumen is present, it coagulates it instantly. After its first use, and the slight infusion of its vapor in the air, giving to the atmosphere a faint odor like that of kreosote, and forthwith plunging all the cast-off clothing into a solution of the acid, I believe that the patient and the apartment occupied will be disinfected. Relatives, nurses and attendants may have immunity from contagion, public confidence may be restored, the necessity for vaccination be less imperative, and, in severe cases, lives be saved, which otherwise, under the moral shock, would be sacrificed. The advantage I have derived from the use of carbolic acid in cutaneous diseases, although not febrile, warrants the anticipation of a good result in hastening the cicatrization of variolous pustules.

As the addition of a few drops of carbolic acid, say ten drops to an eight-ounce mixture, in applications to the throat in diptheria, immediately suppresses the fœtor of the breath, and necessarily destroys all the confervoid germs, as discovered by Salisbury in the saliva, and in diptheritic growths in the throat, so may it be useful when applied to the portal of the lungs, to neutralize their exhalations, and prevent the contamination of the atmosphere. The inhalation of carbolic acid vapor, as it comes atomized from a weak solution in Cologne water, Florida water, or Bay rum, commences the internal carbolization of the system. A sufficient quantity may be thus introduced by the circulation to arrest the reproduction in the system of the variolous poison. A light piece of gauze or mosquito net, saturated with the preparation and laid over the face, will serve the combined objects of a local application, an inhalation, and a purifier of the atmosphere.

Having great confidence in the efficacy of Sarracenia purpurea, I should be unwilling to dispense with its use. The addition of the carbolic acid would not neutralize its action; on the contrary, it would assist the operation of the sarracenia by leaving it less to do, and thereby enhance its merit. The dose being from one-half to one drop of the alcoholic solution, is readily added to any agreeable preparation, or may be given with the sarracenia. The introduction of the acid into the stomach, and its absorption thence into the circulation, would, I believe, sufficiently permeate all the tissues to eradicate the poison, and thus materially shorten the duration, and moderate the virulence of the disease.

The Sarracenia purpurea was introduced to use in the profession in 1861, by Dr. F. W. Morris, of Halifax, Nova Scotia. (See Braithwaite's Retrospect, part 47, p. 21, N. Y. Ed., 1863.) He obtained it from an old Indian woman, who had successfully used it. Several years ago I obtained it in California, and at my instance, Messrs. Keith & Co. prepared the fluid extract, which I used in doses of a teaspoonful every two hours. Steele & Co. have the same preparation still. I addressed Keith & Co., of New York, to prepare the proximate principle sarracenin, but received from that firm a negative answer. It was also provided by me to Mr. H. Webster, who was going as Indian Agent to Washington Territory, and among whose tribes of Indians the small-pox was very prevalent. It was for this object especially that it was desirable to possess the concentrated sarracenin. As Dr. Morris was convinced of the "wonderful characteristics of this plant" in the two first instances in which he used it in 1861, so was I satisfied of its merit in the few cases in which I could see its effects. Why, then, may we not anticipate the most happy results, when with sarracenia and carbolization combined, this scourge of humanity can be assailed.

Carbolic acid was first prepared by Runge from coal tar, and has for its formula, according to Laurent, $C^{12}\ H^{5}O+HO$. This hydro-carbon is now obtained pure in crystals, which are readily rendered fluid by gently heating in hot water, and then adding a very small quantity of water. It requires but about sixty drops of this fluid to a gallon of water, when the water becomes antiseptic to an astonishing degree, destroys animal and vegetable life; applied to plants, kills their parasites immediately, and for these reasons, when sprinkled in the sick room, disinfects it promptly. In using it in variola, the entire body should be moistened several times daily. As it is colorless, and when diluted as above, is not corrosive, all wearing apparel and bed clothing may be washed in it. For this purpose the solution of carbolic acid in alcohol should be added. Alcohol dissolves it in large quantity, and hence as a concentrated tincture it may be kept and diluted to any degree. Allowing the carbolic acid to have been liberally used in all the various modes as here stated, I am confident the apparel of the sick with variola may be worn immediately with safety; their apartments may be visited with immunity from danger; the dread of small-pox hospitals may be relieved; boarding houses and hotels need not be deserted, and variola may be left to the same regulations as rule in other diseases.